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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of

Docket No: Q60072

Kyoko HIGASHINO, et al.

Appln. No.: 09/625,993

Group Art Unit: 2834

Confirmation No.: 8492

Examiner: J. Gonzalez

Filed: July 26, 2000

For: STATOR FOR AN AUTOMOTIVE ALTERNATOR

REPLY BRIEF PURSUANT TO 37 C.F.R. § 1.193(b)

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 1.193(b), Appellant respectfully submits this Reply Brief in response to the Examiner's Answer dated April 18, 2003. Entry of this Reply Brief is respectfully requested.

POINTS RAISED IN EXAMINER'S ANSWER

I. Rejection of claims 10 and 11 under 35 U.S.C. § 112, second paragraph

The Examiner's Answer does not mention the 35 U.S.C. § 112, second paragraph, rejection of claims 10 and 11 or provide a response to the Appellant's arguments in this regard. However, the Examiner's Answer (page 6) indicates that claim 10 would be

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allowable if rewritten independent form while claim 11 remains rejected under 35 U.S.C. § 103(a). Accordingly, Appellant is presuming that the § 112, second paragraph, rejection of claims 10 and 11 has been withdrawn.

II. Prior Art Rejection of Claim 1

In the Brief on Appeal filed February 7, 2003, Appellant argued that neither Huang nor Beard teach or suggest “an annular shaped, single piece stator core formed as a lamination of a plurality of sheet-shaped magnetic members, having . . . a first end surface and a second end surface fixed together to form said annular shape”, as claimed. Rather, both Huang and Beard require the stator core to be divided into at least two segments. (e.g., see col. 6, lines 55-58 of Huang, and Fig. 1 of Beard).

In the Response to Argument section of the Examiner’s Answer (page 6), the Examiner contends that “[f]rom the claim 1 and also from figure 3 of the present invention, the stator is formed of a plurality of pieces which are put together to form one single piece of the stator.” Further, the Examiner contends “[t]he disclosure of the present invention do[es] not disclose that the stator is formed of only one single piece all together, but [rather by] placing together several pieces (see claim 1).”

However, as discussed above claim 1 requires “an annular shaped, single piece stator core formed as a lamination of a plurality of sheet-shaped magnetic members” rather than a multiple-piece stator core formed from a plurality of segments each formed as a lamination of a plurality of sheet-shaped magnetic members. Further, as shown in

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Figures 1 and 3 and discussed on page 6 of the present application, a stator core is formed by laminating a number of sheet-shaped magnetic members and welding together the end surfaces of the stator core. *See* page 6, lines 15-29. Thus, Appellant respectfully submits that the specification, drawings and claims each teach “an annular shaped, single piece stator core formed as a lamination of a plurality of sheet-shaped magnetic members”.

On the other hand, both Huang and Beard teach a multiple piece stator core formed of at least two segments, wherein each segment is formed of a plurality of laminated members. Therefore, neither Beard nor Huang disclose a single piece stator core as claimed.

In addition, Appellant argued in the Brief on Appeal that neither Huang nor Beard teach or suggest “two sets of three-phase stator coils fitted into said slots”, as required by claim 1. Rather, Huang teaches a conventional three-phase coil and Beard makes no mention of a stator winding.

In the Response to Argument section of the Examiner’s Answer (page 6), the Examiner contends “[c]laim 1 discloses that two sets are fitted in the slots of the stator, however, the claims do not specify what a set is.” Further, the Examiner takes the position that the claimed stator coils read on windings 37 of Huang because “[a]s known, a single three phase winding may be composed of a plurality of wires, thus each of the three phase winding[s] 37 may be a set.” However, contrary to the Examiner’s assertion, claim 1 specifies “two sets of three-phase stator coils”. Thus, Appellant respectfully

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submits claim 1 clearly distinguishes over Huang which discloses one set of three-phase stator coils.

Accordingly, Appellant respectfully submits that independent claim 1 should be allowable because the applied reference does not teach or suggest all of the features of the claimed invention.

III. Prior Art Rejection of Claim 2

In the Brief on Appeal, Appellant argued dependent claim 2 should be allowable because the cited references do not teach or suggest “an interval in the circumferential direction between a center of air gaps of adjacently formed slot opening portions is not the same”, as claimed.

In the Response to Argument section of the Examiner’s Answer (page 7), the Examiner contends “[c]laim 2 discloses that the slot opening[s] of the stator is not the same.” Further, the Examiner contends “Maruyama et al clearly disclose a stator which has intervals in a circumferential direction wherein the slot opening portions are not the same.” However, claim 2 does not require that the slot openings of the stator are different. Rather, claim 2 requires “an interval in the circumferential direction between a center of air gaps of adjacently formed slot opening portions is not the same”.

On the other hand, although Maruyama discloses air gaps of slot opening portions that have different widths, S_1 and S_2 , the interval in the circumferential direction between centers of air gaps of adjacently formed slot opening portions disclosed by Maruyama is static (i.e., it does not alternate as claimed). In particular, the interval in the circumferential direction between a

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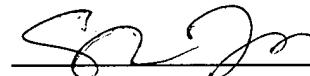
center of air gaps of adjacently formed slot opening portions is the sum of interval α and interval β such that the sum of intervals α and β , which is the angular separation between air gap center lines, is the same even though widths S_1 and S_2 alternate. *See* col. 31, lines 2-27 and col. 32, line 44 to col. 33, line 1.

Accordingly, Appellant respectfully submits that claim 2 should be allowable because the applied reference does not teach or suggest all of the features of the claimed invention.

CONCLUSION

For the above reasons as well as the reasons set forth in Appellant's Brief on Appeal, Appellant respectfully requests that the Board reverse the Examiner's rejections of all claims on Appeal. An early and favorable decision on the merits of this Appeal is respectfully requested.

Respectfully submitted,



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